

AMENDMENTS TO THE CLAIMS:

Please cancel claims 4 and 10-17, without prejudice or disclaimer of their subject matter, amend claims 1, 3, and 18, and add new claims 21-24, as indicated below. This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A plasma processing apparatus comprising:

a chamber in which a plate to be processed is contained;

an introductory port via which a hydrogen-atom-containing gas is guided into the chamber;

a lower electrode on which the plate to be processed is laid in the chamber;

an upper electrode which is disposed opposite to the lower electrode and which causes electric discharge in the chamber to produce a plasma;

a power supply which supplies voltage between the lower electrode and the upper electrode; and

a metal oxide structural body disposed ~~in a part in~~ on an inner surface of the chamber and in a position in the vicinity of the plasma and in a position out of ion irradiation from the plasma, the metal oxide structural body being reduced when the hydrogen-atom-containing gas is introduced.

2. (Original) The plasma processing apparatus according to claim 1, wherein the metal oxide structural body includes one selected from the group consisting of Cu oxide and Ag oxide on at least the surface of the metal oxide structural body.

3. (Currently Amended) The plasma processing apparatus according to claim 1, wherein the surface of the metal oxide structural body is coated with ~~[[one]]~~ a metal selected from the group consisting of Cu and Ag, and the metal is oxidized.

4. (Canceled)

5. (Original) The plasma processing apparatus according to claim 1, wherein the metal oxide structural body is disposed in a ring shape on the inner surface of the chamber.

6. (Original) The plasma processing apparatus according to claim 1, wherein the metal oxide structural body is disposed in a cylindrical shape on the inner surface of the chamber.

7. (Original) The plasma processing apparatus according to claim 1, wherein the hydrogen-atom-containing gas, which is to be guided into the chamber, includes at least one selected from the group consisting of H₂, NH₃, and CH₄.

8. (Original) The plasma processing apparatus according to claim 1, wherein the plate to be processed is obtained by forming a pattern of a resist on a low dielectric constant film and

using the resist pattern as a mask to selectively etch the low dielectric constant film, and the plasma produced between the lower electrode and the upper electrode ashes the resist.

9. (Original) The plasma processing apparatus according to claim 1, wherein the power supply is a high-frequency power supply.

10.-17. (Canceled)

18. (Currently Amended) A semiconductor manufacturing apparatus comprising:
a chamber in which a semiconductor wafer as an object of resist ashing is contained;
an introductory port via which a hydrogen-atom-containing gas is guided into the chamber;
a lower electrode on which the semiconductor wafer is laid in the chamber;
an upper electrode which is disposed opposite to the lower electrode and which causes electric discharge in the chamber to produce a plasma;
a power supply which supplies voltage between the lower electrode and the upper electrode; and
a metal oxide structural body disposed ~~in a part in~~ on an inner surface of the chamber and in a position in the vicinity of the plasma and in a position out of ion irradiation from the plasma,
the metal oxide structural body being reduced when the hydrogen-atom-containing gas is introduced.

19. (Original) The semiconductor manufacturing apparatus according to claim 18, wherein the metal oxide structural body includes one selected from the group consisting of Cu oxide and Ag oxide on at least the surface of the body.

20. (Original) The semiconductor manufacturing apparatus according to claim 18, wherein the semiconductor wafer includes a low dielectric constant film formed above the semiconductor substrate, and a resist disposed on the low dielectric constant film in order to selectively etch the low dielectric constant film, and the plasma produced between the lower electrode and the upper electrode ashes the resist.

21. (New) The plasma processing apparatus according to claim 1, wherein the metal oxide structural body is disposed above the lower electrode and underneath the upper electrode.

22. (New) The plasma processing apparatus according to claim 1, wherein an output of the power supply is applied to the lower electrode, and the upper electrode is grounded.

23. (New) The semiconductor manufacturing apparatus according to claim 18, wherein the metal oxide structural body is disposed above the lower electrode and underneath the upper electrode.

24. (New) The semiconductor manufacturing apparatus according to claim 18, wherein an output of the power supply is applied to the lower electrode, and the upper electrode is grounded.